



Volunteer Lake Assessment Program Individual Lake Reports

E. WASHINGTON DAM POND, WASHINGTON, NH

MORPHOMETRIC DATA

Watershed Area (Ac.):		Max. Depth (m):		Flushing Rate (yr ⁻¹)		Year	Trophic class	KNOWN EXOTIC SPECIES
Surface Area (Ac.):	26	Mean Depth (m):		P Retention Coef:		2010	MESOTROPHIC	
Shore Length (m):		Volume (m ³):		Elevation (ft):				

The Waterbody Report Card tables are generated from the 2012 305(b) report on the status of N.H. waters, and are based on data collected from 2001-2011.

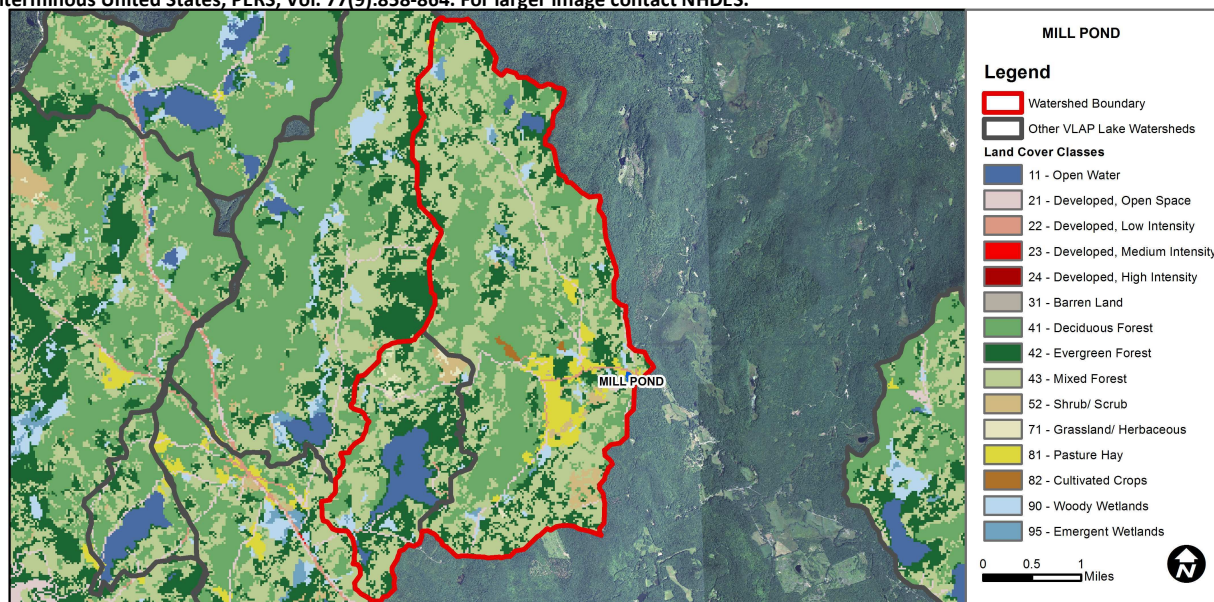
Designated Use	Parameter	Category	Comments
Aquatic Life	Phosphorus (Total)	No Threshold	No threshold established.
	pH	Slightly Bad	>10% of samples exceed criteria by a small margin (minimum of 2 exceedances).
	D.O. (mg/L)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	D.O. (% sat)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	Chlorophyll-a	No Threshold	No threshold established.
Primary Contact Recreation	E. coli	No Data	No Data for this parameter.
	Chlorophyll-a	Slightly Bad	>10% of samples exceed criteria by a small margin (minimum of 2 exceedances).

BEACH PRIMARY CONTACT ASSESSMENT STATUS

BEARDS BROOK - MILL POND TOWN BEACH	E. coli	Bad	>=1 exceedance(s) of geometric mean criterion and/or >=2 exceedances of single sample criterion, with 1 or more >2X criteria.
-------------------------------------	---------	-----	---

WATERSHED LAND USE SUMMARY

Fry, J., Xian, G., Jin, S., Dewitz, J., Homer, C., Yang, L., Barnes, C., Herold, N., and Wickham, J., 2011. Completion of the 2006 National Land Cover Database for the Conterminous United States, PERS, Vol. 77(9):858-864. For larger image contact NHDES.



Land Cover Category	% Cover	Land Cover Category	% Cover	Land Cover Category	% Cover
Open Water	3.48	Barren Land	0.01	Grassland/Herbaceous	0.47
Developed-Open Space	1.99	Deciduous Forest	28.39	Pasture Hay	3.49
Developed-Low Intensity	0.37	Evergreen Forest	18.32	Cultivated Crops	0.25
Developed-Medium Intensity	0	Mixed Forest	38.9	Woody Wetlands	1.89
Developed-High Intensity	0	Shrub-Scrub	1.89	Emergent Wetlands	0.53



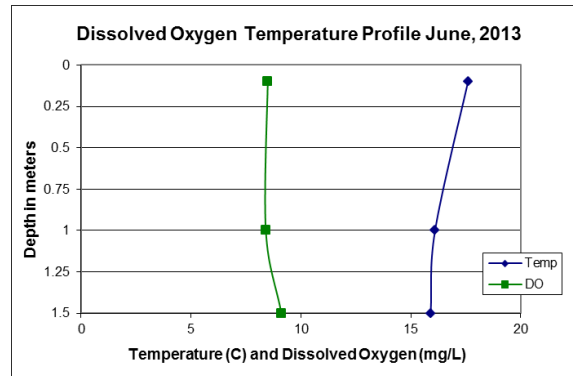
VOLUNTEER LAKE ASSESSMENT PROGRAM INDIVIDUAL LAKE REPORTS

MILL POND, EAST WASHINGTON, NH

2013 DATA SUMMARY

OBSERVATIONS AND RECOMMENDATIONS (Refer to Table 1 and Historical Deep Spot Data Graphics)

- CHLOROPHYLL-A:** Chlorophyll levels were low in June and August and spiked in October, however average levels were less than the 2010 – 2012 period.
- CONDUCTIVITY/CHLORIDE:** Conductivity levels were average for most NH lakes and increased in October after a significant period of dry weather.
- E. COLI:** E. coli levels were below state standards for surface water in Island Pond Inlet and Woodward Brook on the June, August and October sampling events. We hope to see this continue!
- TOTAL PHOSPHORUS:** Average Epilimnetic and tributary phosphorus levels were the lowest measured since monitoring began. We hope to see this continue!
- TRANSPARENCY:** The Secchi disk was visible on the pond bottom in June and August. Average transparency improved in 2013.
- TURBIDITY:** Epilimnetic turbidity was slightly elevated in August and October, and October was likely a result of the increased algal growth.
- pH:** Deep spot and tributary pH levels were lower than desirable in June.
- DISSOLVED OXYGEN:** Dissolved oxygen levels were high throughout the water column.
- RECOMMENDED ACTIONS:** In recent years, several best management practices (BMPs) have been implemented in the watershed to reduce non-point source runoff to the tributaries and pond. Phosphorus and E. coli levels were at their lowest in 2013 potentially due to the BMPs. Continue monitoring to identify if improving water quality continues. Keep up the great work!



Station Name	Table 1. 2013 Data for BEARDS BROOK - EAST WASHINGTON DAM							
	Alk.	Chlor-a	Cond.	E. Coli	Total P	Trans.	Turb.	pH
	mg/l	ug/l	uS/cm	#/100ml	ug/l	m	ntu	
						NVS		
Epilimnion	7.97	3.97	48.9		16	1.92	1.24	6.53
Island Pond Inlet			68.8	67	13		0.69	6.95
Outlet			47.5		19		1.00	6.59
Woodward Brook			27.6	20	10		0.89	6.54

NH Median Values: Median values for specific parameters generated from historic lake monitoring data.

Alkalinity: 4.9 mg/L

Chlorophyll-a: 4.58 mg/m³

Conductivity: 40.0 uS/cm

Chloride: 4 mg/L

Total Phosphorus: 12 ug/L

Transparency: 3.2 m

pH: 6.6

NH Water Quality Standards: Numeric criteria for specific parameters. Results exceeding criteria are considered a water quality violation.

Chloride: < 230 mg/L (chronic)

E. coli: > 88 cts/100 mL – public beach

E. coli: > 406 cts/100 mL – surface waters

Turbidity: > 10 NTU above natural level

pH: 6.5-8.0 (unless naturally occurring)

HISTORICAL WATER QUALITY TREND ANALYSIS

Parameter	Trend	Explanation	Parameter	Trend	Explanation
pH	N/A	Ten consecutive years of data necessary.	Chlorophyll-a	N/A	Ten consecutive years of data necessary.
Conductivity	N/A	Ten consecutive years of data necessary.	Transparency	N/A	Ten consecutive years of data necessary.
			Phosphorus (epilimnion)	N/A	Ten consecutive years of data necessary.

